REMARKS

Claims 1-20 remain for further consideration. No new matter has been added.

The objections and rejections shall be taken up in the order presented in the Official Action.

3-4. Claims 1-3, 5-10 and 12-20 currently stand rejected for allegedly being obvious in view of the combined subject matter disclosed in U.S. Patent 5,940,398 to Stiegler et al. (hereinafter "Stiegler"), U.S. Patent 6,058,288 to Reed et al. (hereinafter "Reed"), U.S. Patent 5,808,660 to Sekine et al. (hereinafter "Sekine"), U.S. Patent 5,596,647 to Wakai et al. (hereinafter "Wakai"), U.S. Patent 5,121,205 to Ng et al. (hereinafter "Ng") and U.S. Patent 6,097,435 to Stanger et al. (hereinafter "Stanger").

Claim 1

The Official Action recognizes that Stiegler fails to teach certain features of claim 1. (Official Action, pgs. 4-5). The Official Action then contends that "*in an analogous art, Reed teaches a data source (32, 34, 36, 38, 40, 54, 18, 22, 69 – fig. 2; col. 6, lines 26-37) for compressed (col. 19, lines 50-67) audio and video digital data where the bit positions for the audio or video data are collected together in several connected component bit groups (col. 8, lines 12-27, col. 17, lines 39-45); a demultiplexer (demodulation module) to separate the compressed audio and the compressed video data in one compressed signal (col. 22, lines 7-12)*." (Official Action, pg. 5). The Official Action concludes that "*it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Stiegler's invention to include the above mentioned limitation, as taught by Reed, such that the receiver could*

simultaneously receive and demodulate the transmitted signal, and simultaneously display the video signal and play the audio signal." (Official Action, pg. 5).

The Official Action recognizes that the combination of Stiegler and Reed fail to teach certain features of claim 1. (Official Action, pg. 5). The Official Action then contends that "*in an analogous art, Sekine teaches it is desirable to use compressed audio/video (MPEG compression of audio/video) either MPEG1 or MPEG2 for transmission of signals at various definition (bit rates) depending on the type of device connected to the network (col. 6, lines 6-12; col. 4, lines 40-43; figs. 10-11).*" (Official Action, pgs. 5-6). The Official Action concludes that "*it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Stiegler and Reed to include compressed audio/video as taught by Sekine for the added advantages of being in compliance with a well known/commercial standard that enables reduced bit rate playback of a diverse selection of media/media types, e.g., video CDs, DVD standard discs, MP3 audio, etc., and media playback devices.*" (Official Action, pg. 6).

The Official Action recognizes that the combination of Stiegler, Reed and Sekine fail to teach certain features of claim 1. (Official Action, pg. 6). The Official Action then contends that "*in an analogous art, Wakai teaches it is desirable to use an audio buffer for intermediately storing separated audio data before it is transmitted to a ring network so that synchronization within the passenger entertainment system is maintained based on the network transmission rate (fig. 1) (col. 24, lines 23-42).*" (Official Action, pg. 6). The Official Action concludes that "*it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Stiegler and Glass in view of Sekine to include an audio buffer for intermediately storing the separated audio data as taught by Wakai for the well known advantages of improving transmission load efficiency and reducing data read/write/codec errors because buffers enable interconnecting of two digital circuits operating at different rates,*

holding data for use at a later time, allowing timing corrections to be made on a data stream, and collecting binary data bits into groups that can then be operated on as a unit." (Official Action, pgs. 6-7).

The Official Action recognizes that the combination of Stiegler, Reed, Sekine and Wakai fail to teach certain features of claim 1. (Official Action, pg. 7). The Official Action then contends that "*in an analogous art Ng teaches a bit rate converter 514 (fig. 5) to recode a high definition signal 510 (fig. 5) to a standard (lower resolution) MAIN signal, e.g., a NTSC signal shown at 515 (col. 5, lines 13-35; col. 2, lines 21-30). Ng teaches a video buffer 516 (fig. 5) for intermediately storing the separated video data (col. 5, lines 29-32). Ng does this so that when the signal (Y' I' Q') separated from the high definition signal 510 is received as an auxiliary signal by a receiver/decoder it will maintain synchronism with the main signal, e.g., audio or video, transmitted on a network are properly aligned/synchronous when recombined for presentation at the receiver/decoder (col. 2, lines 14-31).*" (Official Action, pg. 7). The Official Action concludes that "*it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Stiegler, Reed, Sekine and Van Steenbrugge to include a bit rate converter to recode, and a video buffer for intermediately storing the separated video data as taught by Ng for the added advantage of minimizing system and receiver cost by transmitting a less bandwidth demanding signal that is compatible with a plurality of commercially available and standard receiver devices.*" (Official Action, pgs. 7-8; where "Van Steenbrugge" mentioned above, while not explicated listed in the Official Action, is taken to mean U.S. Patent 5,485,459, previously submitted by Applicant in an Information Disclosure Statement).

The Official Action contends that "*Stiegler, Reed, Sekine, Wakai, and Ng teach control units connected to the audio (Van Steenbrugge - col. 5, lines 25-35 - control arrangement 416 -*

fig. 4) and video buffers (Ng - 516, 518 -fig. 5; col. 4, lines 9-12; col. 5, lines 29-32 & lines 50-56)." (Official Action, pg. 8). The Official Action recognizes that "*Stiegler, Reed, Sekine, Wakai, and Ng fail to teach a control unit which specifies and controls the adjustable intermediate storage time of the buffers.*" (Official Action, pg. 8). The Official Action contends that "*in an analogous art Stanger teaches it is desirable to use a control unit 80 (fig. 4) which specifies and controls the adjustable intermediate storage time of buffers for controlling bit rate output when distributing compressed a audio/video signal in a limited bandwidth network (col. 4, lines 42-51; col. 3, lines 15-47; col. 7, lines 39-42).*" (Official Action, pg. 8). The Official Action concludes that "*it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Stiegler, Reed, Sekine, Van Steenbrugge, and Ng to include a control unit which specifies and controls the adjustable intermediate storage time of the buffers as taught by Stanger for the added advantage of reducing the bit rate of the source signal and conserving bandwidth on the data line/ring network (Stanger - col. 1, lines 30-34).*" (Official Action, pg. 8). It is respectfully submitted that this rejection is improper for several reasons.

THE CLAIMED INVENTION IS PATENTABLE OVER THE COMBINED REFERENCES

The combination of Stiegler, Reed, Sekine, Wakai, Ng and Stanger fail to render claim 1 obvious because the combined references fail to disclose certain features of claim 1, including "*a data source for compressed audio and video digital data, where the bit positions for the audio or video data respectively are collected together in several connected component bit groups.*" As noted above, the Official Action contends that Reed discloses "*a data source (32, 34, 36, 38, 40, 54, 18, 22, 69 – fig. 2; col. 6, lines 26-37) for compressed (col. 19, lines 50-67) audio and video digital data where the bit positions for the audio or video data are collected together in several*

connected component bit groups (col. 8, lines 12-27, col. 17, lines 39-45)." (Official Action, pg. 5). However, none of the enumerated items in Reed contended to be a data source (i.e., 32, 34, 36, 38, 40, 54, 18, 22, 69) are disclosed or suggested in Reed as providing compressed audio and video data, and certainly not "*a data source for compressed audio and video digital data, where the bit positions for the audio or video data respectively are collected together in several connected component bit groups*" as in the present claimed invention. These enumerated items merely disclose various devices that each provides a certain function with no discussion regarding the type of data (e.g., compressed, decompressed) that each device provides, for example, the personal computer entertainment server 40. In a similar manner, nowhere in the cited section of column 6, lines 26-37 is there any disclosure or suggestion of a data source that provides compressed audio and video digital data. Instead, this cited section merely discloses that located at the head end of the aircraft are various entertainment servers, yet Reed fails to disclose or suggest that these servers provide compressed audio and video data.

In support of its contention that Reed discloses compressed data, the Official Action, in the cited section noted above, relies on a video control unit (VCU) 44 as the alleged source of compressed data. The supporting cited section of Reed at column 19, lines 50-67, which the Official Action contends discloses compressed audio and video data provided by the enumerated data sources discussed above, discloses "*the VCU 44 input/output function provides the interface between the application software and the passenger entertainment system control ("PESC") 71 and the passenger entertainment auxiliary controller ("PEAC") 69. The VCU 44 file load function enables the storage and retrieval of data to mass storage such as digital audio tapes ("DAT") 336. It also permits the maintenance crew to load new program and configuration files into the VCU 44. The file load function includes a data compress function which compresses data for tape storage, a write data conversion function which takes the compressed data and*

formats it for storage, the DAT data storage control function which performs the necessary electronic and electromechanical activities such as addressing required for DAT data storage and retrieval, data decompress function which receives compressed data and converts it into noncompressed data, the read data conversion function which takes decompressed data and formats it for use, and a store function which performs nonvolatile storage of programs and data in an uncompressed format." (emphasis added; col. 19, lines 50-67). Thus, this disclosure merely teaches that the VCU 44 contains a file load function that compresses data for tape storage, and a data decompress function that converts the compressed data into non-compressed data and a read data conversion function that takes the decompressed data and formats it for use. There is no disclosure here that this compressed data comprises audio or video digital data, nor any disclosure or suggestion that "*where the bit positions for the audio or video data respectively are collected together in several connected component bit groups*", as in the present claimed invention.

Further, in conjunction with the contention in the Official Action that the VCU 44 is a data source for compressed audio and video data, there is no disclosure in Reed of the features of the present claimed invention "*where the bit positions for the audio or video data respectively are collected together in several connected component bit groups.*" As noted above, the Official Action cites two separate sections of Reed for support for these features of the present claimed invention. However, Reed at column 8, lines 12-27 discloses "*the ESU 22 is interfaced with the ESes 24 by coaxial cable. The signals are received from the ESes 24 utilizing BFDM or Baseband Frequency Division Multiplex signal format. BFDM maintains the high video and audio quality of full baseband systems while requiring only one coaxial cable for each seat. The BFDM signal format preferably allows four audio channels to be sent with the video signal to allow the passenger up to four choices of languages to accompany the video signal. In a*

preferred embodiment, the video signal is a National Television Systems Committee ("NTSC") video signal. The video signal is broadcast at baseband, while the four audio channels are frequency modulated ("FM") at four equally spaced carrier frequencies in preferable the 4-7 MHz band. Total band width of the BFDM signal is therefore preferable about 7 MHz. The ESU 22 output utilizes BFDM signal format and is connected to the VDB 18 by coaxial cables." This section merely discloses that four audio channels are sent with the video signal in BFDM (baseband frequency division multiplex) format, without any further detail regarding these two types of data. (See, for example, col. 4, lines 5-16 of Reed regarding the BFDM format). Thus, there is no disclosure or suggestion here with regard to the bit positions for the audio and video data within this transmission of audio and video data, and certainly no disclosure or suggestion that the bit positions for the audio or video data are collected together in several connected component bit groups, as in the present claimed invention.

Also, Reed at the cited section of column 17, lines 39-45, discloses "*the demodulator board 244 filters the audio signals from the BFDM signal, demodulates the FM audio signal which accompanies the video signal from the ESU 22, and provides an audio left and audio right track to the headset jack for providing to a passenger the selected audio signal via headset 250. The main board 240 provides the video signal to the VDU 14.*" This section merely discloses that the BFDM signal demodulates the audio signal from the video signal and provides the demodulated audio signal as left and right signals to a headset worn by the listener. Again, there is no disclosure or suggestion here with regard to the bit positions for the audio and video data within this demodulation of audio and video data, and certainly no disclosure or suggestion that the bit positions for the audio or video data are collected together in several connected component bit groups as in the present claimed invention. Therefore, the combination of

Stiegler, Reed, Sekine, Wakai, Ng and Stanger neither discloses or suggests a data source that provides compressed audio and video digital data configured and arranged as recited in claim 1

Further, no valid reason has been identified in the Official Action as to why a person of ordinary skill in the art would have combined Stiegler, Reed, Sekine, Wakai, Ng and Stanger to meet the features of claim 1 of "*a data source for compressed audio and video digital data including a demultiplexer to separate the compressed audio and compressed video data contained in one compressed signal.*"[1] As noted above, the Official Action concludes that "*it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Stiegler's invention to include the above mentioned limitation, as taught by Reed, such that the receiver could simultaneously receive and demodulate the transmitted right channel and left channel signals, and simultaneously display the video signal and play the audio signal.*" (Official Action, pg. 5). The Official Action contends that Stiegler discloses "*at least one data source (video camera 41 and/or CD player 42, inter alia; col. 2, lines 26-31) being present for audio (CD player 42 provides audio and col. 3, lines 40-45 & col. 6, lines 35-40 ... wherein the at least one data source comprises: a data source for audio and video data (as discussed above).*" (emphasis in original; Official Action, pg. 4). However, Stiegler or Reed, or more particularly the combination of Stiegler, Reed, Sekine, Wakai, Ng and Stanger, fails to disclose a data source for both compressed audio and video digital data. None of the devices connected in the network 31 of Stiegler (FIG. 3) comprise a data source for both audio and video data. Instead, the video source (video camera 41) in Stiegler is separate from the audio source (CD player 42). The video camera 41 in Stiegler is used within a motor vehicle and as such the

[1] See Memorandum, dated May 3, 2007, from Margaret A. Focarino, Deputy Commissioner for Patent Operations, to Technology Center Directors regarding the Supreme Court decision on *KSR Int'l Co., v. Teleflex, Inc.*, where it is emphasized that "***therefore, in formulating a rejection under 35 U.S.C. §103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed.***"

camera 41 must be a pure video device since there is no need for a camera in a motor vehicle application that captures both video and audio. A video camera in a motor vehicle is typically used as back-up camera, for example in SUV's with limited rear visibility. Therefore, Stiegler can not be read as teaching a video camera that provides both video and audio. Further, as discussed in detail above, Reed also fails to disclose a data source that provides compressed audio and video digital data. The Official Action only cites to the VCU 44 of Reed as providing compressed data for storage and later decompression for use without specifying the type of compressed data. Thus, it is respectfully submitted that the combined references Stiegler, Reed, Sekine, Wakai, Ng and Stanger neither disclose nor suggest the feature of claim 1 of *"a data source for compressed audio and video digital data, where the bit positions for the audio or video data respectively are collected together in several connected component bit groups"*. As a result, the reason identified in the Official Action to combine Stiegler with Reed (*"such that the receiver could simultaneously receive and demodulate the transmitted right channel and left channel signals, and simultaneously display the video signal and play the audio signal"*) is not a valid reason as to why a person of ordinary skill in the art would have combined Stiegler, Reed, Sekine, Wakai, Ng and Stanger to allegedly meet the feature of claim 1 of "*a data source for compressed audio or video data*". Claim 1 recites *"a data source for compressed audio and video digital data, where the bit positions for the audio or video data respectively are collected together in several connected component bit groups"* (emphasis added, cl. 1) and the combined prior art references fail to disclose a data source that provides compressed audio and video digital data along with the corresponding "bit position" features as expressly set forth in the claim.

Finally, the combined references fail to disclose the claimed feature of "*a demultiplexer to separate the compressed audio and compressed video data contained in one compressed signal.*" As discussed in detail above, Reed fails to disclose or suggest that the audio and video

data contained within the cited section of Reed at column 19, lines 50-67 comprises compressed audio and compressed video digital data. The section of Reed cited in the Official Action (col. 22, lines 7-12) noted above in support of the contention that Reed discloses "*a demultiplexer (demodulation module) to separate the compressed audio and compressed video data in one compressed signal*" discloses "*the demodulation module is used to provide separation of BFDM inputs into their audio and video components for output of only one of the four audio channels to the mux audio system and the video signal to the overhead video system.*" There is no disclosure or suggestion here that the BFDM inputs are compressed signals, nor that these signals contain compressed audio and compressed video data. (See the arguments above with respect to col. 8, lines 12-27 and column 17, lines 39-45). Instead, this section of Reed merely discloses that the BFDM signal is demodulated into its audio and video components without specifying the nature (i.e., compressed or decompressed) of these components.

In light of the foregoing, the combined references fail to disclose certain features of claim 1. Therefore, it is respectfully submitted that the obviousness rejection of claim 1 is now moot, and that claim 1 is in condition for allowance.

Claim 13

Claim 13 currently stands rejected for the same reasons as claim 1. The arguments set forth above with respect to the patentability of claim 1 apply to claim 13. Thus, it is respectfully submitted that the obviousness rejection of claim 13 is now moot and that claim 13 is in condition for allowance.

Claim 19

Claim 19 currently stands rejected for the same reasons as claim 1. The arguments set forth above with respect to the patentability of claim 1 apply to claim 19. Thus, it is respectfully submitted that the obviousness rejection of claim 19 is now moot and that claim 19 is in condition for allowance.

5. Claim 4 currently stands rejected for allegedly being obvious in view of Stiegler, Reed, Sekine, Wakai, Ng, Stanger and U.S. Published Application 2001/0014207 to Kawamura (hereinafter "Kawamura").

It is respectfully submitted that the rejection of this claim is now moot, since claim 4 depends indirectly from claim 1, which is patentable for at least the reasons discussed above.

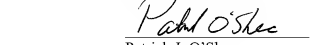
6. Claim 11 currently stands rejected for allegedly being obvious in view of Stiegler, Reed, Sekine, Wakai, Ng, Stanger and U.S. Patent 5,898,695 to Fujii (hereinafter "Fujii").

It is respectfully submitted that the rejection of this claim is now moot, since claim 11 depends from claim 1, which is patentable for at least the reasons discussed above.

For all the foregoing reasons, reconsideration and allowance of claims 1-20 is respectfully requested.

If a telephone interview could assist in the prosecution of this application, please call the undersigned attorney.

Respectfully submitted,



Patrick J. O'Shea
Reg. No. 35,305
O'Shea, Getz & Kosakowski, P.C.
1500 Main Street, Suite 912
Springfield, MA 01115
(413) 731-3100, Ext. 102